

REMARKS

The Office Action dated September 26, 2007 has been received and carefully noted. The following remarks, are submitted as a full and complete response thereto.

Claims 1-22 are respectfully submitted for consideration.

The Office Action rejected claims 1-6, 8-14 and 16-21 under 35 U.S.C. 102(b) as being anticipated by US Patent No. 6,219,343 to Honkasalo et al. (Honkasalo). Applicants submit that Honkasalo fails to disclose or suggest all of the features recited in any of the pending claims.

Claim 1, from which claims 2-7 depend, is directed to a method. A port transmission rate is incremented using a variable resolution. Data is transmitted through the port using the incremented port transmission rate.

Claim 8 is directed to a data transmission rate control system. The system includes means for incrementing a port transmission rate using a variable resolution; and means for transmitting data through the port using the incremented port transmission rate.

Claim 9, from which claims 10-15 depend, is directed to a data transmission rate control system. A rate setting engine is configured to increment a port transmission rate using a variable resolution. A transmission engine, communicatively coupled to the rate setting engine, is configured to transmit data through the port using the incremented port transmission rate.

Claim 16, from which claims 17-22 depend, is directed to a computer-readable medium having stored thereon instructions to cause a processor to execute a method. The method includes incrementing a port transmission rate using a variable resolution. Data is transmitted through the port using the incremented port transmission rate.

Embodiments of the present invention are directed to increasing or decreasing the data transmission rate using variable resolution. For example, for lower data rates a higher resolution is used and for higher data rates a lower resolution is used. See for example paragraph [0019] of the present specification. Applicants submit that each of the pending claims recites features that are neither disclosed nor suggested in Honkasalo.

As discussed in Applicants previous correspondence, Honksalo is directed to controlling data rate allocations to data packet users transmitting packet data over a CDMA cellular communication network. Traffic channels and radio capacity allocated for packet data services within the network are evaluated to determine an available resource for a packet data transmission. A rate control algorithm is employed to determine a data rate allocation for the packet data transmission. See col. 7 lines 3-5. Transmit power of a transmitter is limited to provide the determined data rate allocation for the packet data transmission. See col. 7 lines 33-36.

Applicants submit that that Honkasalo fails to disclose or suggest at least the feature of "incrementing a port transmission rate using a variable resolution" as recited in claim 1 and similarly recited in claims 8, 9 and 16. Applicants submit that as discussed above, Honkasalo merely describes control algorithm that is employed to determine a

data rate allocation for the packet data transmission. The control algorithm described in Honkasalo, does not contemplate at all, using resolution as a factor in controlling the data rate allocation. At best, Honkasalo describes that a systems power allocation is considered to determine available capacity before a data rate is determined. See col. 7 lines 18-26 of Honkasalo. Again, the feature “resolution” is not mentioned, disclosed or suggested in Honkasalo.

In the Response to Arguments” section, the Office Action alleged that the above feature is disclosed in col. 7 lines 2-17 and Figs. 5 and 6, which, according to the Office Action, states that the port transmission rate is varied using differing data rates at regions R1, R2 and R3. Applicants respectfully submits that the Office Action appears to be inappropriately reading features into Honkasalo that do not exist. As stated above, Honkasalo is silent with regards to varying the port transmission rate using a variable resolution. For example, the portion of Honkasalo cited in the Office Action merely states that the power is adjusted so that it increases in proportion to the higher rate transmission. Further, Honkasalo merely describes that the regions illustrated in Fig. 5 R1, R2 and R3, transmit packets at different data rates. This is clearly not analogous to varying the transmission rate using variable resolution. Further, Honkasalo is silent with regards to varying resolutions. Honkasalo does not describe that regions R1 and R2 and R3 have varying resolutions.

Still further, the Office Action alleged that Applicants specification interprets “resolution” as “data rate.” This is either a misunderstanding or misinterpretation of

Applicants' disclosure. In fact, Applicant's disclosure states that "[t]he speed (rate) of data transmission in generally increased or decreased linearly with a fixed resolution. In other words, the rate can be increased or decreased in quantized fixed amounts." This is clearly not an admission that data rate and resolution are the same, as alleged in the Office Action, and in fact, is an indication that these are two distinct features.

Additionally, MPEP 2131 states that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. (underline added) Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628,631,2 USPQ2d 1051, 1053 (Fed. Cir. 1987). However, the Office Action essentially does not address the element "resolution" because it essentially took the erroneous position that "data rate" and "resolution" are the same feature. Accordingly, for this additional reason, it is respectfully requested that the rejection be withdrawn.

Applicants submit that because claims 2-6, 9-14, and 17-21 depend from claims 1, 9 and 16, these claims are allowable at least for the same reasons as claims 1, 9, and 16 as well as for the additional features recited in these dependent claims.

Based at least on the above, Applicants submit that Honkasalo fails to disclose or suggest all of the features recited in claims 1-6, 8-14, and 16-21. Accordingly, withdrawal of the rejection under 35 U.S.C. 102(b) is respectfully requested.

The Office Action rejected claims 7, 15, and 22 under 35 U.S.C. 103(a) as being obvious over Honkasalo, in view of US Patent Publication No. 2004/0017306 to Miao et

al. (Miao). The Office Action took the position that Honkasalo disclosed all of the features of these claims except segmented data rates in a range above 2Mbps and 1000Mbps. The Office Action asserted that Miao disclosed this feature. Applicants submit that the cited references, taken individually or in combination, fail to disclose or suggest all of the features recited in any of the pending claims. Specifically, Honkasalo is deficient at least for the reasons discussed above, and Miao fails to cure these deficiencies.

As discussed in Applicants' previous correspondence, Miao is directed to a scalable analog-to-digital (A/D) converter that is used to substitute a very-high-speed A/D converter. The A/D converter has flexibility and scalability including the number of low-speed A/D converters, fine-adjustable attenuations, digital FIR filters or one digital FIR filter, with operating in parallel. Fig. 6 illustrates a digital down conversion (DDC) 56. The DDC 56 works by first shifting the ultra wideband signals with a frequency range from 3.1 GHz to 10.6 GHz of interest to baseband signals by using the complex multiplying 120 the received signals of the scalable A/D converter 54 by a complex oscillator 122. The baseband signals of output of the complex multiplier 120 are passed through the decimation lowpass FIR filter $H_{\text{sub}}(z)$ 124, which is controlled by the clock control 128. The output signals from the decimation lowpass FIR filter $H_{\text{sub}}(z)$ 124 are then passed one of the down sampling blocks 130a-130g through the selectable MUX 132, which is controlled by the clock control 128 and the down sampling N selector 126. The selectable MUX 132 produces one of the data rates of 1 Gbps, 500

Mbps, 250 Mbps, 200 Mbps, 100 Mbps, 50 Mbps based on the down sampling blocks 130b, 130c, 130d, 130e, 130f, 130g, respectively. See paragraphs [0035] – [0036] of Miao.

Applicants submit that Miao fails to disclose or suggest at least the feature of “incrementing a port transmission rate using a variable resolution”. As discussed above, Miao is merely directed to a scalable A/D converter operable at very high speed. Thus, Miao fails to cure the significant deficiencies of Honkasalo.

Further, Applicants submit that one skilled in the art would not be motivated to modify the teachings of Honkasalo with Miao.

To establish *prima facie* obviousness there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on Applicants’ disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art. In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998).

If the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make

the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Applicants submit that one skilled in the art would not be motivated to combine Honkasalo with Miao because one skilled in the art would not be motivated to implement a scalable A/D converter into Honkasalo. Even though both references mention techniques for high speed services, this fact alone does not show why such a combination would be desirable or how it would be implemented. For example, there is no showing, in either of the references themselves, or in the Office Action as to how one skilled in the art would employ the A/D converter into the system described in Honkasalo. Thus, the combination would yield an unexpected result. Thus, Applicants submit that there is a lack of motivation to combine the references as alleged in the Office Action.

Based at least on the above, Applicants submit that the cited references fail to disclose or suggest all of the features recited in claims 7, 15, and 22. Accordingly, withdrawal of the rejection under 35 U.S.C. 103(a) is respectfully requested.

Applicants submit that each of claims 1-22 recites features that are neither disclosed nor suggested in any of the cited references. Accordingly, it is respectfully requested that each of claims 1-22 be allowed, and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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